DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
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PERMIT TO CONSTRUCT APPLICATION

Revision 3
03/27/07

Please see instructions on page 2 before filling out the form.

IDENTIFICATION

Company Name:	Facility Name:	Facility ID No:
NxEdge, Inc.		001-00202

Brief Project Description: Facility Equipment and Throughput Modifications

BOOTH INFORMATION

1. Booth Type: ☐ New Booth ☐ Unpermitted Existing Booth
☒ Modification to a Permitted Booth, Permit #: P-040007, Date Issued: 7/22/2005

2. Construction Date: Awaiting PTC Modification Approval : (2Q 2008)

SPRAY GUN DESCRIPTION AND SPECIFICATIONS

Gun No.	3. Manufacturer	4. Model	5. Type	6. Transfer Eff. %	7. Rated Capacity (gal/hr)
1	ITW Gema	Easy 1-L	Electrostatic	60%	
2	Nordsen	TriboMatic II	Electrostatic	60%	
3					
4					

Number of guns to be used simultaneously: 1

SPRAY MATERIAL DESCRIPTION AND SPECIFICATIONS

8. Type of Spray Material Used	9. Type of Material Coated	10. Max. Usage (gal/day)	11. Solid TAP/HAP Content (lb/gal)	12. VOC TAP/HAP Content (lb/gal)	13. MSDS Attached? (Y/N)
Halar and Teflon owders	Metal	400 lb/day	0	5 wt% max	y

REQUEST FOR PERMIT LIMITATIONS

14. Are you requesting any permit limits? ☐ No ☒ Yes. If Yes, check all that apply below and fill in requested limit(s)

☐ Operation Hour Limits:	☐ Production Limits:
☒ Material Usage Limits: 400 lb/day and 4000 lb/yr owder sprayed (four booth total)	☐ Other:

15. Rationale for Requesting the Limit(s): Meet PM10 ambient air quality standards.

EMISSION CONTROL DEVICE (FILTER[b]) DESCRIPTION AND SPECIFICATIONS

Stack Served	16. Filter Manufacturer	17. Model	18. PM Control Efficiency(%)[a]	19. Dimension (Total Area, Thickness and Number of Filters)
Stack 1				
Stack 2				
Stack 3				
Stack 4	Paint Pockets	PP	99.7%	33.3 ft2, 12 filters at 20 inch by 20 inch each

Notes: a. Provide either stack test data or vendor's documentation to support the control efficiency specified above.
b. Fill out and submit appropriate control equipment form(s) if this booth has a control device(s) other than a filter system.

BOOTH OPERATING SCHEDULE (indicate hours/day, hours/year, or other)

20. Actual Operation:	21. Maximum Operation:
8 hrs/day (non-continuous), 5 days/week	12 hrs/day (non-continuous), 6 days/week

4. SPRAY PAINT BOOTHS – FORM EU3 DOCUMENTATION

Four spray booths are located in the Fluoropolymer (FP) area. This area was previously referred to as the Engineered Coatings (EC) Area. Supply air to all four booths is provided by a fan rated at 16,000 CFM. Each booth is equipped with an exhaust fan that pulls ambient air from the spray booth, through an overspray arrestor and then exhausts through a roof vent. These booths were included in the previous permit. NxEdge requests modification to the existing permit limits to increase the amount of coatings allowed to be sprayed.

4.1 FP Area Spray Booths

The booths are used to apply powder and wet coatings to metal parts. Three of the booths are used for powder coatings (Halar Booth, Teflon Booth, Powder Booth) and one is used for wet coatings (Wet Booth). The quantity of coatings applied by NxEdge is not large: 1000 pounds per year of powder and less than 50 gallons per year of wet coatings. The booth emissions contain volatiles from the wet coatings, and any particulate overspray that is not captured by the booth filters.

Each booth is equipped with an exhaust fan, which draws booth air through the outlet filters installed along one booth wall and up, out of the booth. The three powder coating booths' exhaust fans are Greenheck Model TCB-2-22 (Halar and Powder Booths) and TCB 2-18 (Teflon Booth), with 3 HP motors and rated flows of xxx and xxx cfm, respectively. The Wet Booth fan is a Model TB-30E4 (2 HP) manufactured by Twin Cities Fan Company, rated at 10,000 CFM. Specification sheets for all of the exhaust fans are attached. Each booth has its own 22" roof vent. The vents exhaust vertically and are unblocked.

Because all of the stacks are located in the same area on the building roof, and NxEdge would like to avoid individual booth permit limits, for air dispersion modeling all emissions from the spray booths were modeled from one representative stack. The representative location, EP-3, is shown on Form PP. This approach was used and approved for the PTC modeling performed in support of the original permit.

Each spray booth is equipped with Paint Pockets PP paint arrestor pads on the exhaust plenums. Manufacturer and test data are attached. These filters have been tested and found to capture 98.13% of wet coating overspray and 99.7% of powder coating spray, 10 microns in diameter or larger. Typical particle size for the powder that NxEdge applies is 65 microns or larger (see attached product sheet).

Powder coatings are applied using ITW Gema Easy 1-l or Nordsen Tribomatic II spray guns. Manufacturer information sheets for the spray guns are attached. Electrostatic application is utilized. The EPA reports typical transfer efficiency of 60% for manual electrostatic spray application.[27] A conservative (maximizes emissions) retention efficiency of 50% was used for the emission estimations included in this modification. Estimated particulate emission are calculated in Table 4.1 based on proposed permit limits of 400 pounds per day and 4000 pounds per year of combined powder coatings used in the booths. Controlled particulate emissions are estimated using a filter efficiency of 97%. All powder coating particulate emissions are conservatively assumed to be PM_{10}.

Wet coatings are applied using Astro Quantum Ultra Light HVLP spray gun. Manufacturer information sheet for the spray gun is attached. The EPA reports typical transfer efficiency of 25% for wet coating spray application.[28] While the manufacturer and NxEdge report higher transfer efficiency from the HVLP gun, to be conservative the 25% transfer efficiency was used for these emission calculations. Estimated TAP and particulate emissions are calculated in Table 4.1 based on proposed permit limits of 5 gallons per day and 50 gallons per year of each wet coating except POR-15 Rust Preventative Paint (see discussion below). Controlled particulate and non-volatile TAP emissions are estimated using a filter efficiency of 97%. All wet coating volatile components are assumed to be completely emitted from the spray booths. All wet coating particulate emissions are conservatively assumed to be PM_{10}.

POR-15 paint contains pre-polymerized methylenediphenyl diisocyanate (MDI). Based on correspondence with the supplier (attached), up to 20% of the MDI may be in a monomer form considered a Toxic Air Pollutant in Idaho. While most of the MDI is polymerized during the air curing process, some of the monomer MDI may be emitted. The actual extent of reaction and or typical emission rates for the monomer MDI in this type of application are not known at this time by NxEdge.

However, POR-15 is expected to be used on a very limited basis by NxEdge. Estimated emissions of MDI based on using 0.20 gallons per day and assuming 0% MDI curing conversion, target retention, and filter retention are shown in Table 4.1. NxEdge proposes an MDI emission limit of 0.53 pounds per day. If NxEdge needs to increase POR-15 usage above 0.20 gallons per day in the future, MDI conversion and/or retention data can be pursued to justify an increased use rate under the permit limit.

[27] AP-42, Chapter 4.2.2.12, Table 4.2.2.12-1
[28] Ibid.

Table 4-1: Fluoropolymer Area Emissions- Spray Booths

FP Source: WETPOWC

Common Name (Trade Name)	Restricted Daily Use (gal/day)	Restricted Annual Use (gal/yr)	Product Specific Gravity (MSDS)	Restricted Daily Use (lb/day)	Restricted Annual Use (lb/yr)	Solids Content (MSDS wt%)	VOC Content (MSDS lbs/gal)	Restricted VOC Emissions (tons/yr)	HAP/TAP Components	CAS Number	Component Conc. (MSDS, max wt%)	Coating Retention[2] (%)	Spray Booth Filter Efficiency[3] (%)	Controlled Emissions (lb/hr, 24-hr Avg)	Controlled Emissions (lb/yr)
Acetone	5	50	0.792	33.0	330.3	0%	0.0	0	Acetone	67-64-1	100%	0%	0%	1.376	330.3
Isopropyl Alcohol	5	50	0.805	33.6	335.7	0%	6.7	0.17	IPA	67-63-0	100%	0%	0%	1.399	335.7
One Coat Black 954-203	5	50	0.99	41.3	412.8	33.54%	5.5	0.14	1,2,4-Trimethyl benzene	95-63-6	2%	0%	0%	0.034	8.3
									Aromatic HC [1]	64742-95-6	24%	0%	0%	0.413	99.1
									Carbon Black	1333-86-4	1.2%	25%	97%	0.000	0.1
									Diacetone Alcohol	123-42-2	24%	0%	0%	0.413	99.1
									Formaldehyde	50-00-0	0.2%	0%	0%	3.44E-03	0.8
									MIBK	108-10-1	23%	0%	0%	0.396	95.0
									n-Butyl Alcohol	71-36-3	3%	0%	0%	0.052	12.4
									Xylene	1330-20-7	6%	0%	0%	0.103	24.8
One Coat Gray 420-104	5	50	1.09	45.5	454.5	26%	6.7	0.17	Diacetone Alcohol	123-42-2	2%	0%	0%	0.038	9.1
									MIBK	108-10-1	20%	0%	0%	0.379	90.9
One Coat Sparkling Gray 420-106	5	50	1.05	43.8	437.9	22.12%	6.8	0.17	Aluminum	7429-90-5	1%	25%	97%	4.10E-04	0.099
									MIBK	108-10-1	23%	0%	0%	0.420	100.7
POR-15 Rust Preventative	0.20	50	1.6	2.7	667.2	70%	1.97	0.05	Methylenediphenyl diisocyanate (MDI)	26447-4-0-5	20%	0%	0%	0.022	133.4
Primer Black 420-703	5	50	1.14	47.5	475.4	30.4%	6.6	0.17	Carbon Black	1333-86-4	1.0%	25%	97%	0.000	0.107
									Diacetone Alcohol	123-42-2	33%	0%	0%	0.654	156.875
									MIBK	108-10-1	16%	0%	0%	0.317	76.061
Primer Black One Coat 959-203	5	50	1.14	47.5	475.4	26.56%	6.3	0.16	Carbon Black	1333-86-4	2.8%	25%	97%	0.001	0.30
									Formaldehyde	50-00-0	0.3%	0%	0%	0.006	1.4
									i-Butyl Alcohol	78-83-1	6%	0%	0%	0.119	28.5
									MIBK	108-10-1	17%	0%	0%	0.337	80.8
									n-Butyl Alcohol	71-36-3	3%	0%	0%	0.059	14.3
									VM&P Naphtha	64742-89-8	6%	0%	0%	0.119	28.5
Thinner (Dupont T-8748)	5	50	0.89	37.1	371.1	0%	7.5	0.19	MIBK	108-10-1	50%	0%	0%	0.773	185.6
Halar and Teflon Fluoropolymer Powders	--	--	--	400	4000	100%	0	0	--	--	--	50%	97%	--	--

Criteria Pollutants Emissions Summary

Fluoropolymer Spray Booths	Current Permit (ton/yr)	Controlled Hourly Emissions (lb/hr)	Controlled Annual Emissions (ton/yr)
PM_{10}	0.0020	0.310	0.042
VOC	0.10	9.62	1.20

Hazardous Pollutants Emissions Summary

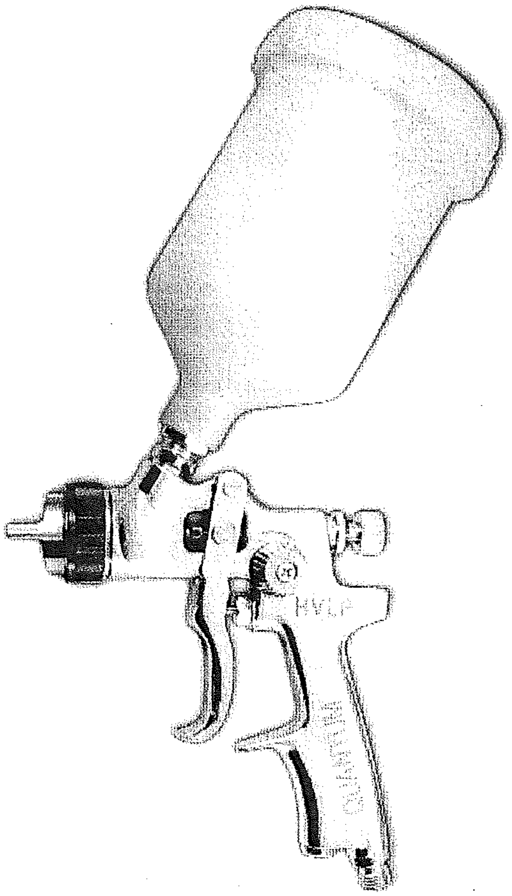
Spray Booth HAPs - Combined Emissions	Controlled Emissions (ton/yr)
Formaldehyde	1.1E-03
MDI	0.06672
MIBK	0.31
Toluene	0.050
Xylene	0.012
Total =	0.44

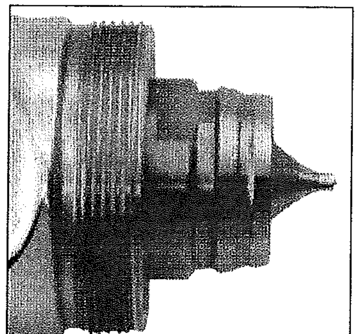
Toxic Air Pollutants Emissions Summary

Fluoropolymer Spray Booths	TAP Type (24 hr or Annual Ave. EL)	TAP Screening Emission Level (lb/hr)	Controlled Emissions (lb/hr)	Controlled Emissions (lb/yr)
Acetone	585 (24 hr)	119	1.4	330
Aluminum	585 (24 hr)	0.667	4.10E-04	0.10
i-Butyl Alcohol	585 (24 hr)	10	0.12	28.5
n-Butyl Alcohol	585 (24 hr)	10	0.11	26.6
Carbon Black	585 (24 hr)	0.23	0.0022	0.5
Diacetone Alcohol	585 (24 hr)	16	1.1	265
Formaldehyde	586 (Annl)	5.1E-04	2.6E-04	2.3
IPA	585 (24 hr)	65.3	1.4	336
MDI	585 (24 hr)	0.003	0.022	133
MIBK	585 (24 hr)	13.7	2.6	629
Toluene	585 (24 hr)	25	0.41	99.1
1,2,4-Trimethyl benzene	585 (24 hr)	8.2	0.034	8.3
VM&P Naphtha	585 (24 hr)	91.3	0.12	28.5
Xylene	585 (24 hr)	29	0.10	24.8

Notes: 1. Assume to be toluene
2. Per AP-42, Chapter 4.2.2.12 typical spray paint retention is 25%. Typical electrostatic powder spray retention is 60%.
3. Paint Pockets rated removal efficiency with paint = 98.13%, arrestance with powder = 99.7%. 97% used for calculation of controlled emission rates of solids.

Model # QUL-HVLP





Unibody head contruction

Quantum Ultra Light HVLP Gravity Feed Spray Guns

Astro Pneumatic

18051 East Arenth Ave.
City of Industry, CA 91748
(800) 221-9705 • (626) 965-4449
Fax (626) 965-5797
E-mail: Astrotools@astrotools.com

FEATURES:

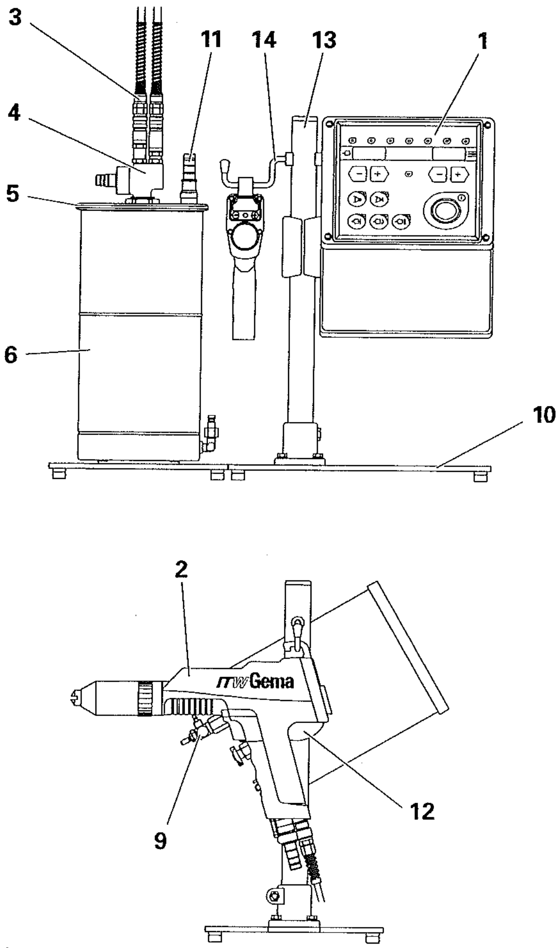
Features:

- Unibody head construction
  - Eliminates Leakage After Cleaning
- Easy to adjust paint controls
- Finest atomization for high efficiency
- An environmentally favorable HVLP system with low air consumption & high transfer efficiency up to 65%
- QUL HVLP Gravity Feed Spray Guns include a 600ml plastic cup and are available in the following nozzle sizes: QUL103 - 1.3mm, QUL105 - 1.5mm, QUL107 - 1.7mm, QUL109 - 1.9mm

SPECIFICATIONS:

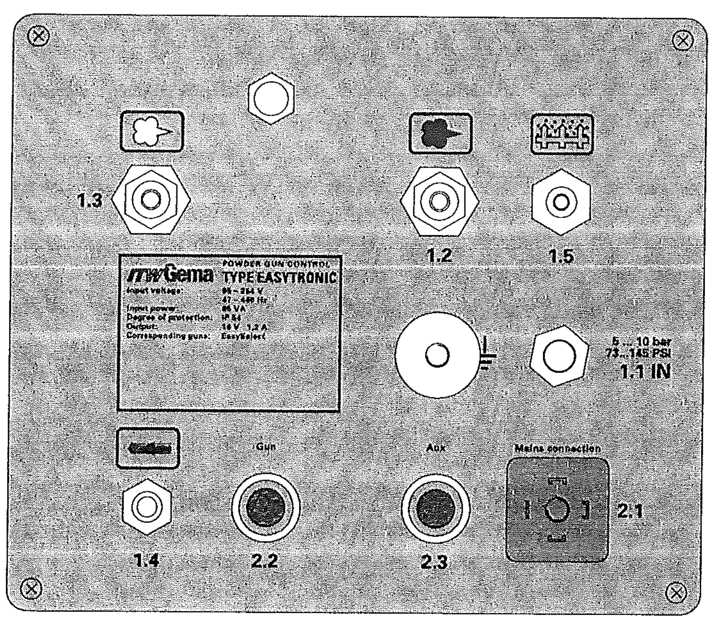
Nozzle Size:	1.3mm, 1.5mm 1.7mm, 1.9mm
• Cup capacity:	600ml
• Operation Pressure:	30psi (2.1kg/cm2)
• Average Air Consumption:	10cfm
• Weight:	1.2lb (530g)
• Air Inlet Thread NPT:	1/4"
• Required Compressor:	3hp
• Max. Pattern at 8" Distance:	9-10-1/2" (230-265mm)
• Air cap output:	10psi
• Air Hose I.D. Size:	4-6mm

EASY 1-L ELECTROSTATIC POWER MANUAL EQUIPMENT



1 EasyTronic control unit
2 EasySelect Manual powder gun
3 Pneumatic hose with quick-release connection
4 OptiFlow Injector
5 Powder hopper cover
6 Powder hopper
9 Fluidizing air unit
10 Base plate
11 Venting connector
12 Clamping element
13 Tube
14 Gun/Hose holder

CONNECTIONS ON THE REAR OF THE EASYTRONIC CONTROL UNIT



1.1 IN Compressed air input
1.2 Conveying air connection
1.3 Supplementary air connection
1.4 Rinsing air connection
1.5 Fluidizing air connection
2.1 Power supply (85–264 V)
2.2 Gun connection for the EasySelect Manual gun. PG 1 Manual gun **cannot** be connected!
2.3 Output for Vibrator (EASY 1-B only) and Stirrer control (EASY 1-S only)
⏚ Grounding connection

TECHNICAL DATA OF THE EASY 1-L POWDER MANUAL COATING EQUIPMENT

Type	***EASY 1-L***
Electrical data	
Input voltage:	85 – 264 V
Frequency:	47 – 440 Hz
Connected load:	65 VA
Rated output voltage (to powder gun):	max. 12 V_S
Rated output current (to powder gun):	max. 1 A
Type of protection:	IP 54
Temperature range:	0 °C to +40 °C (+32 °F to 104 °F)
Approval:	
Pneumatic data	
Main compressed air input:	G 1/4" (Female)
Max. Input pressure:	10 bar
Min. Input pressure:	6 bar
Max. Water vapour content of the compressed air:	1.3 g/m³
Max. Oil vapour content of the compressed air:	0.1 mg/kg (Oil/Water)
Max. Compressed air consumption Powder hose - ø 11 mm:	8 m³/h
Dimensions	
Width:	520 mm
Depth:	285 mm
Height:	428 mm
Weight:	17 kg
Volume:	4 l (approx. 2 kg)

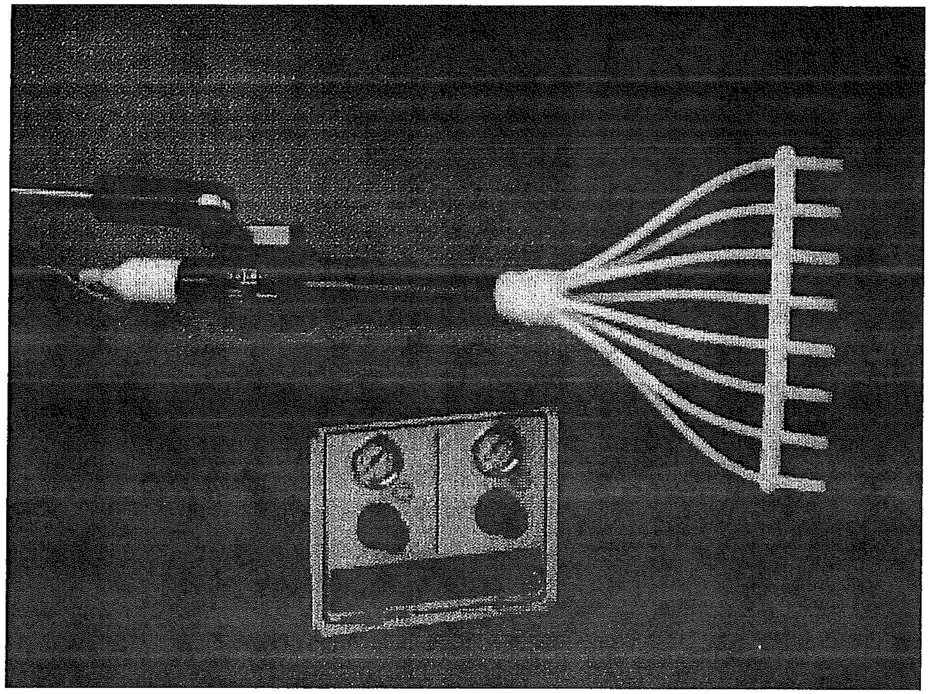
⚠ **IMPORTANT** The Easy 1-L Manual coating equipment can only be used with the EasySelect Manual Powder Gun!

Tribomatic® II Powder Coating System

NxEdge PTC Modification

Fluoropolymer Area Spray Booths
Tribomatic Powder Spray Gun

Tribo-charging system features increased powder output and ease of maintenance.



The Tribomatic II system provides optimum performance when coating complex-shaped parts.

The original Nordson Tribomatic system, through its unique friction-charging design, set the standard worldwide for superior coating efficiency, high film-build capability and excellent finish quality. The friction-charged powder particles effectively overcame Faraday Cage effect for superior coverage of complex-shaped parts with deep recesses and corners.

The patented Tribomatic II system introduces the next generation of tribo-charging technology. You get all the performance advantages of the original Tribomatic system plus several additional benefits.

Increased output

The powder output of the Tribomatic II gun is approximately *double* that of the original Tribomatic gun. In applications where *powder output* is the determining factor as to how many guns are required, you may need only half as many Tribomatic II guns to achieve the desired

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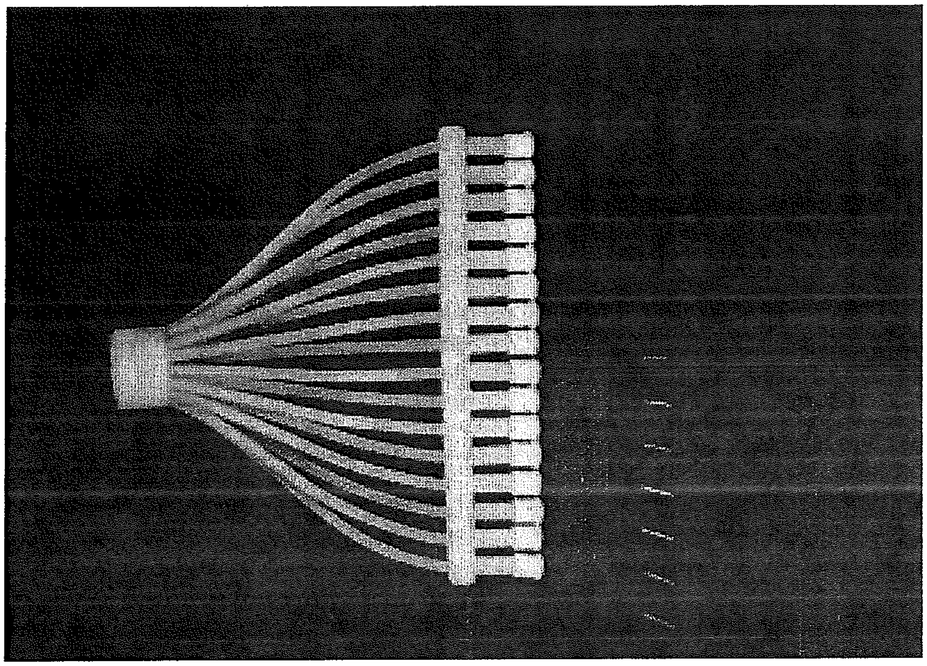
Tribomatic® II Powder Coating System



Compact, lightweight charge module allows ease of positioning.

The original Nordson Tribomatic system, through its unique friction-charging design, set the standard worldwide for superior coating efficiency, high film-build capability and excellent finish quality. The friction-charged powder particles effectively overcame Faraday Cage effect for superior coverage of complex-shaped parts with deep recesses and corners.

The patented Tribomatic II system introduces the next generation of tribo-charging technology. You get all the performance advantages of the original Tribomatic system plus several additional benefits.

Increased output

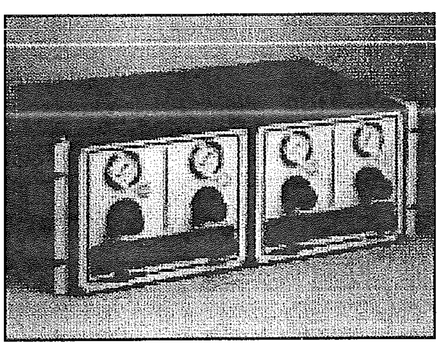
The powder output of the Tribomatic II gun is approximately *double* that of the original Tribomatic gun. In applications where *powder output* is the determining factor as to how many guns are required, you may need only half as many Tribomatic II guns to achieve the desired coverage. In applications where *gun positioning* is the determining factor, Tribomatic II guns can be operated at much lower powder flow rates. This reduces air consumption and extends the wear life of powder-contact components.

The increased output capability of the Tribomatic II gun makes it comparable to conventional corona-charging powder spray guns. The Tribomatic II gun's unique characteristics and capabilities may provide distinct advantages over conventional electrostatic guns in performance, versatility, simplicity of operation and overall operating costs.

Tribomatic II gun

The Nordson Tribomatic II powder spray gun is an assembly of modular components for ease of disassembly and maintenance. Major components include a diffuser, charge module and a wide variety of original-design Tribomatic sprayheads.

Compact charge module



The control unit sets and regulates powder flow rate, powder diffusion and level of charge.

The Tribomatic II charge module is less than half the length and substantially lighter in weight than the original Tribomatic charge tube. The shorter length, combined with the new in-line, multi-position gun mount provides virtually unlimited freedom in positioning the gun in any direction. Such gun positioning flexibility proves extremely valuable when coating three-dimensional parts of complex surface profiles.

Fast, easy cleaning and color change

The spray gun can be completely disassembled in a few minutes for fast, easy routine cleaning and contamination-free color change.

Field-replaceable wear parts

The Tribomatic II gun's powder contact parts are precision machined to carefully designed part geometries. This maximizes frictional charging performance while minimizing wear and powder impact fusion. All powder contact parts are field replaceable, either individually or in convenient service kit form, for low operating and maintenance costs.

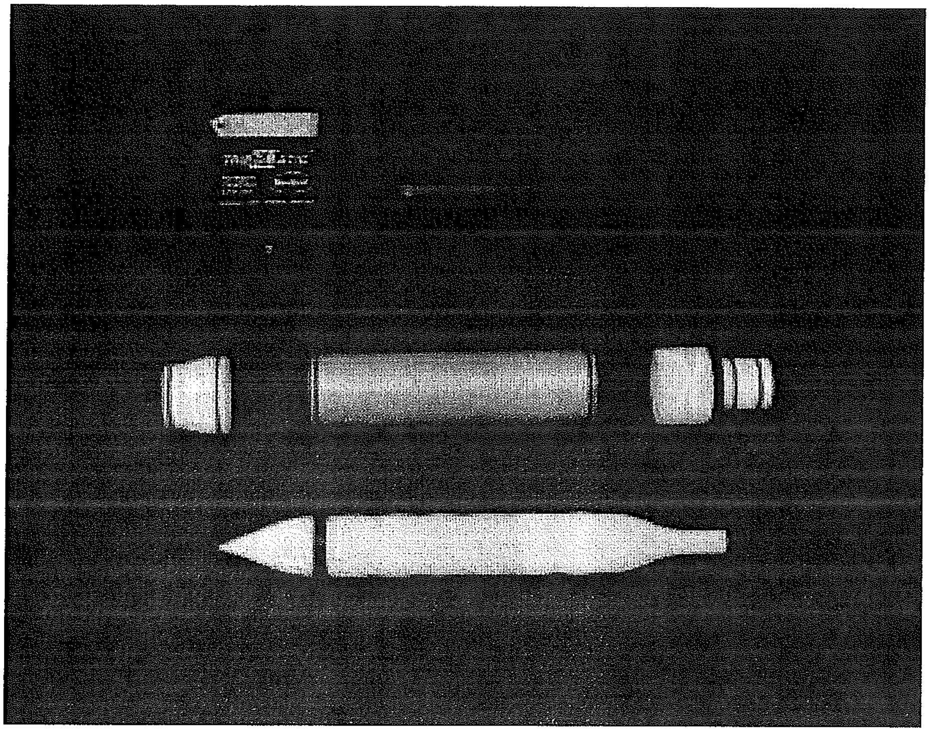
The unique design of the Tribomatic II charge module's inner and outer wear sleeves provides controlled surface wear. This enables the inner and outer wear sleeves to be reversed, as a set, for exceptionally long wear life with no degradation of charging capability.

New in-line, multi-position gun mount

The space-saving design of the in-line, multi-position gun mount option requires half the booth opening space of conventional offset mounts. The mount provides virtually unlimited freedom in positioning the gun in any direction. Such gun positioning flexibility proves extremely valuable when coating three-dimensional parts of complex surface profiles. The gun can be easily disconnected and reconnected to the mount for faster servicing and more complete cleaning during color changes.

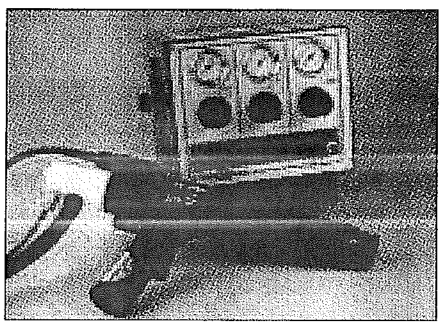
The Tribomatic II system

Optimum performance is achieved with a complete Tribomatic II system,



Modular Tribomatic II charge module disassembles easily for cleaning and routine maintenance.

which includes a charge module, diffuser, pump and control unit. The Tribomatic II diffuser and pump are refinements of previous-generation components to optimize powder flow, powder charging and spray pattern uniformity.



The Tribomatic II manual system meets powder coating requirements for superior coating efficiency and excellent finish quality.

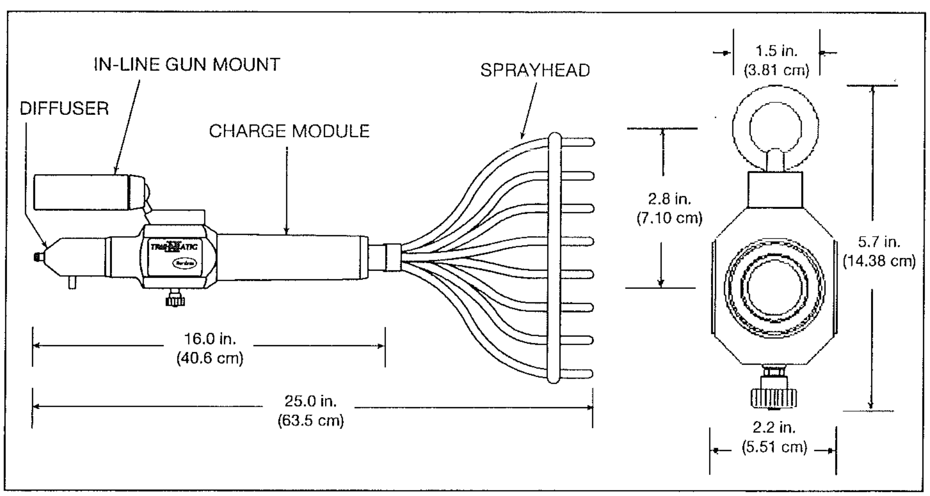
Cost-effective retrofit

The Tribomatic II charge module is designed to work with original Tribomatic control units and sprayheads, for an exceptionally cost-effective upgrade of existing Tribomatic systems. The charge module will also work with original Tribomatic pumps and diffusers, although there may be some reduction in performance.

Tribomatic II control unit

The Tribomatic II control unit uses advanced pneumatics and electronics to set and regulate powder flow rate, powder diffusion and level of charge. The unit includes an integral warning system to alert the operator when charging drops below the user-selectable minimum charging level. One control unit is used per gun.

The modular controller is a compact half-rack size, for side-by-side mounting with other control units. A standard Nordson 19-inch instrument cabinet can hold up to 14 Tribomatic II control units. The control unit works with several Nordson master control units, including the MC-3 control, the Smart-Spray® control and the existing Nordson Tribomatic master control.



Tribomatic II spray gun and new, in-line multi-position gun mount dimensions.

Specifications - Gun

Dimensions

Length
(charge module and diffuser)
16.0 in (40.6 cm)

Length
(overall w/8-tube sprayhead pictured below)
25.0 in (63.5 cm)

Height
(charge module and mount)
5.0 in (12.7 cm)

Width
(gun only)
2.2 in (5.51 cm)

Weight
(charge module, diffuser and gun mount)
2.24 lbs (1,024 g)

	DEQ AIR QUALITY PROGRAM 1410 N. Hilton, Boise, ID 83706 For assistance, call the **Air Permit Hotline - 1-877-5PERMIT**	**PERMIT TO CONSTRUCT APPLICATION** Revision 3 4/5/2007

Please see instructions on page 2 before filling out the form.

Company Name:	**NxEdge, Inc.**
Facility Name:	
Facility ID No.:	001-00202
Brief Project Description:	Facility Equipment and Throughput Modifications

BUILDING AND STRUCTURE INFORMATION

1.	2.	3.	4.	5.	6.	7.
Building ID Number	**Length (ft)**	**Width (ft)**	**Base Elevation (m)**	**Building Height (m)**	**Number of Tiers**	**Description/Comments**
Building 1 ID	160.00	197.00	AERMAP	7.01	2	Flat-roofed building (Tier 1) with three sloped-roof stabouts (Tier 2) on W and E sides
Building 2 ID	265.00	197.00	AERMAP	7.01	1	Nearest building to the east- flat roofed, same height as Bldg 1
Building 3 ID	75.00	418.00	AERMAP	7.01	1	Nearest building to the west- flat roofed, same height as Bldg 1

7. MODELING INFORMATION WORKBOOK - FORM MI1-MI4 DOCUMENTATION

7.1 Modeling Applicability Assessment

7.1.1 Criteria Pollutant Modeling Applicability

PM_{10} and NO_x are the only criteria pollutants with emissions above IDEQ modeling thresholds and, therefore, the only criteria pollutants modeled. Neither the change in emissions of CO, lead, or SO_2 associated with this modification nor the full facility total emissions of these pollutants exceed the IDEQ modeling thresholds. Therefore they are not included in air dispersion modeling.

Air dispersion modeling of the full facility total PM_{10} and NO_x emissions was performed for this project, rather than modeling of the increase in emissions associated with the PTC Modification, consistent with EPA and IDEQ modeling guidance. This was done because of the new PM_{10} emission sources included in this modification and because previous modeling performed in support of the initial PTC application in 2005 used the ISCST3 air dispersion model.

7.1.2 TAPs Modeling Applicability

NxEdge processes have the potential to emit numerous TAPs. All of the coating processes are equipped with emission control equipment and this equipment is necessary to meet ambient air quality standards. In Table 5-2, both the aggregate uncontrolled emission change and the full facility uncontrolled emissions for each TAP are calculated and compared to the emission screening levels listed in IDAPA 58.01.01 Sections 585 and 586.

For aluminum, cadmium, calcium hydroxide, chromium (elemental and hexavalent), cobalt, copper, hafnium, molybdenum, nickel, silicon, tin, vanadium oxide, yttrium, zinc and zirconium both of these emission level indicators exceed their respective screening levels and modeling of these uncontrolled rates would the acceptable ambient concentrations. Therefore, in accordance with IDAPA 58.01.01.210.08, the controlled emissions of these TAPs are modeled to demonstrate compliance with ambient air quality standards.

The uncontrolled emissions of fibrous glass dust from the C&R Parts Prep Room and silicon carbide from AEC Parts Prep Room Two are less than their respective screening levels. These are the only sources of fibrous glass dust and silicon carbide, so no further analysis is required for these TAPs in accordance with IDAPA 58.01.01.210.05.

There are eight TAPs generated solely as a result of natural gas combustion in the Curing Oven and the AEC Area Air Heaters. The facility-wide, uncontrolled emission rates of arsenic, barium, benzene, dichlorobenzene, normal hexane, mercury, naphthalene and pentane are less than their respective emission screening levels. In addition, there are no changes to the fuel-burning capacity of this equipment with this modification, so there is no change in these TAP emissions associated with the modification. According to Permit to Construct regulations provided in IDAPA 58.01.01.210.05 and 210.09, these TAPs do not require further analysis.

Two TAPs, fluoride and hydrogen chloride, are generated from curing and burn-off operations in the Fluoropolymer Area curing ovens. The burn-off emissions are uncontrolled, while curing emissions will be controlled by limits on the amount of powder coating applied in the spray booth. Because the rates of fluoride and hydrogen chloride are below their respective screening emission levels, these emissions are not included in the air dispersion modeling.

Uncontrolled emissions are not calculated for the powder and wet coatings applied in the FP Area Spray Booths. Actual applied coating volumes are far below the maximum possible rates. Therefore, in accordance with IDAPA 58.01.01.08, the controlled emissions of the acetone, butyl alcohol, carbon black, diacetone alcohol, formaldehyde, isopropyl alcohol, methylene diphenyl isocyanate, methyl isobutyl ketone, toluene, trimethyl benzene, VM&P naphtha, and xylene from these booths (WETPOWC) are modeled to ensure compliance with air quality standards and compliance will be ensured with permit limits.

7.2 Modeling Analyses Methodology

7.2.1 Model Used

The dispersion model chosen was AERMOD, the United States Environmental Protection Agency (USEPA)–approved dispersion model. AERMOD, one of the most frequently used regulatory dispersion models in the United States since it replaced ISCST3 in EPA guidance, is the most appropriate of the EPA-approved models given the site's physical characteristics and the variety of facility emission sources.

The sophisticated Prime building downwash algorithm was conservatively applied for the facility. The model was applied as recommended in EPA's Guideline on Air Quality Models (2001), EPA AERMOD model guidance, and the Idaho DEQ Air Quality Modeling Guidelines, utilizing recommended regulatory default options, the simple and complex terrain options, and other input settings.

7.2.2 Criteria Pollutant Modeling Methodology

The facility emission inventory verified two criteria pollutants with the potential to be emitted above IDEQ modeling threshold: NO_x and PM_{10}. Both pollutants are modeled as part of a Full Impact Analysis. All facility NO_x and PM_{10} emissions are modeled, not just the increase associated with this PTC Modification. NO_x has an annually averaged IDEQ ambient impact limit, while PM_{10} has impact limit for both daily and annual average periods.

Model inputs are discussed in Section 7.3, below. The results of an AERMOD air dispersion analysis of NO_x and PM_{10} impact are shown in Table 7.3 (see Section 7.4). Model results reported are the maximum annual average impact at any model receptor in any of the five years modeled for all analyses except 24-hour PM_{10}. The reported 24-hour PM_{10} value is the sixth highest over five years, consistent with EPA and IDEQ guidance. DEQ supplied a PM_{10} background concentration of 87 ug/m^3 24 hour average, and 30.1 ug/m^3 annual average to account for existing PM_{10} in Boise in the area around NxEdge.[29]

7.2.3 TAPs Modeling Methodology

The facility emission inventory identified 30 TAPs for air dispersion modeling. The TAPs are modeled as part of a Full Impact Analysis. All facility TAP emissions are modeled, not just the increases associated with this PTC Modification. Twenty-six of the TAPS have IDEQ ambient impact limits for the daily average period, while four have ambient impact limits for the annual average period.

Model inputs are discussed in Section 7.3 , below. The results of an AERMOD air dispersion analysis of TAP impacts are shown in Table 7.3 (see Section 7.4). Model results reported are the maximum annual average impact at any model receptor in any of the five years modeled.

7.3 Model Input Data

7.3.1 Meteorological Data, Receptor Network

Five years of National Weather Service data from the Boise airport, from 1988 to 1992, are used. The meteorological data are in a single, five-year file provided by IDEQ, who recommended it for AEERMOD applications in the Treasure Valley.

The model includes rural and urban algorithm options. These options affect the wind speed profile, dispersion rates, and mixing-height formula used in calculating ground-level pollutant concentrations. A protocol was developed by USEPA to classify an area as either rural or urban for dispersion modeling purposes. The classification is based on average heat flux, land use, or population density within a three-km radius from the plant site. Of these techniques, the USEPA has specified that land use is the most definitive criterion (USEPA, 1987). The urban/rural classification scheme based on land use is as follows:

> *The land use within the total area, A_o, circumscribed by a 3-km circle about the source, is classified using the meteorological land use typing scheme proposed by Auer (1978). The classification scheme requires that more than 50% of the area, A_o, be from the following land*

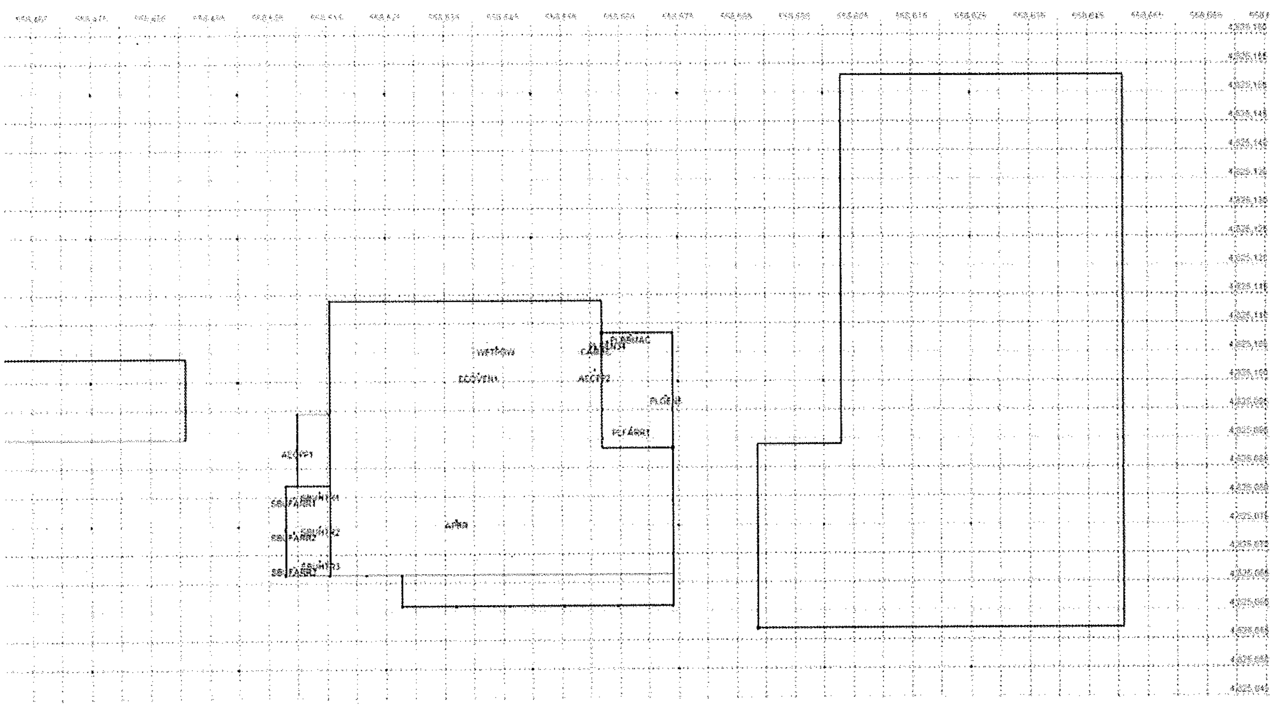
[29] "Background PM10 Question" email correspondence, Darrin Mehr (DEQ) to Sarah Stine (TEM), 4/23/2008.

> *use types in order to be considered urban for dispersion modeling purposes: heavy industrial (I1); light-moderate industrial (I2); commercial (C1); single-family compact residential (R2); and multi-family compact residential (R3). Otherwise, the use of rural dispersion coefficients is appropriate.*

The NxEdge facility is located in a light industrial park in southwest Boise. The majority of the three kilometer circle would include low-rise industrial and residential land uses, with few structures sufficiently high to cause urban wind channeling. Rural dispersion coefficients are therefore used in the air quality dispersion modeling. No urban area was included in the AERMOD modeling analysis.

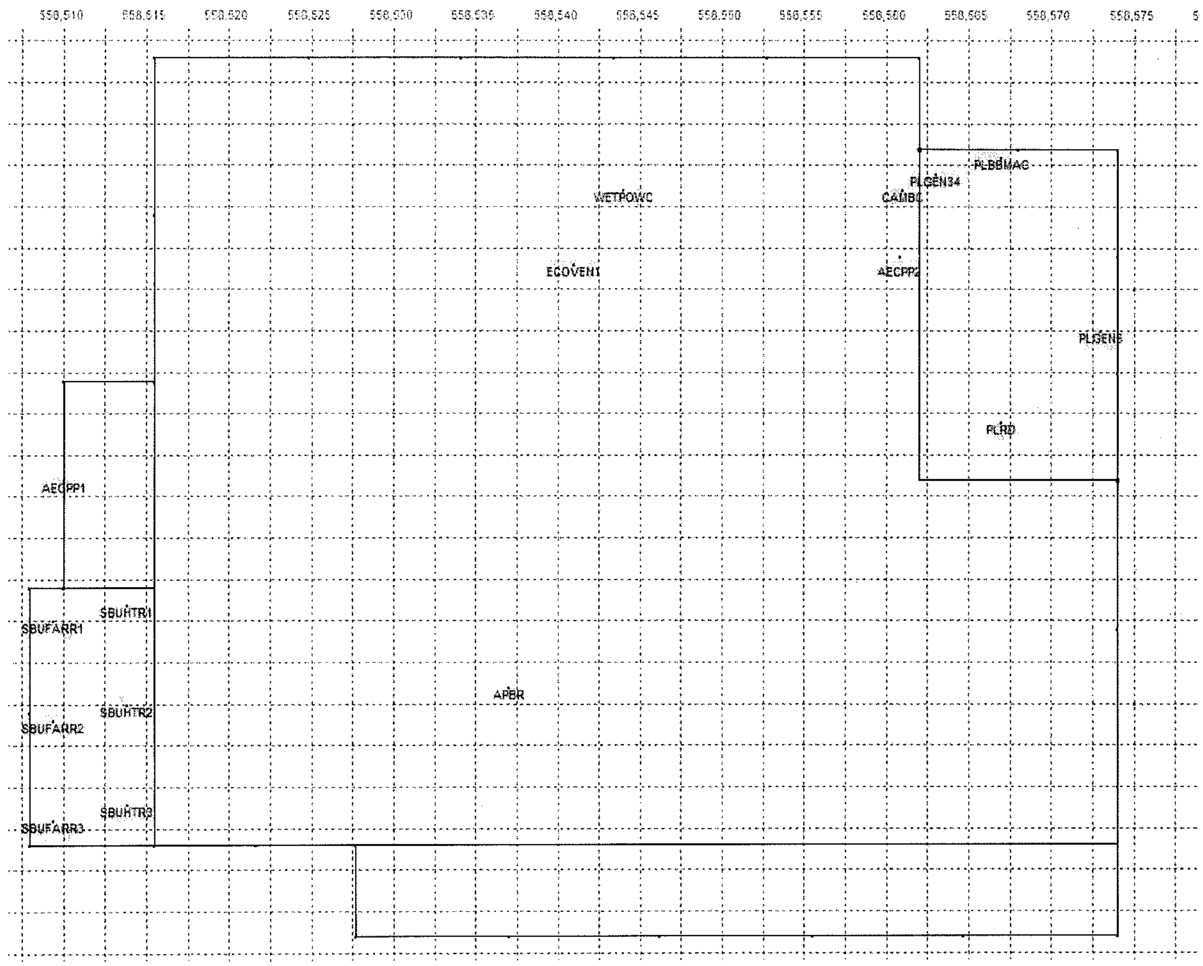
Figure 7-1, below, shows the layout of NxEdge facility, and the model depiction of the sources and buildings within the facility, along with the ambient air boundary. Because the only physical limit on public access are fences on the northeast and southwest corners of the building, the ambient air boundary for this analysis is the facility building (in the center of Figure 7-1) and the fence lines in those corners. The building has two tiers; the flat roofed main building core and the sloped-roof extensions on the south and west side with lower heights. Two nearby buildings are conservatively included for their potential downwash effects.

Figure 7-1: Emission Sources, Building, and Property Boundary / Public Access Limits



A more detailed look at the facility and its model sources is provided in Figure 7-2, below. Facility emission sources depicted in the AERMOD model are shown in red. The seven AEC (SBU) sources are on the lower west section of the building. Four stacks vent in the fenced in courtyard on the northeast corner. All other emissions are from stacks on the main building roof.

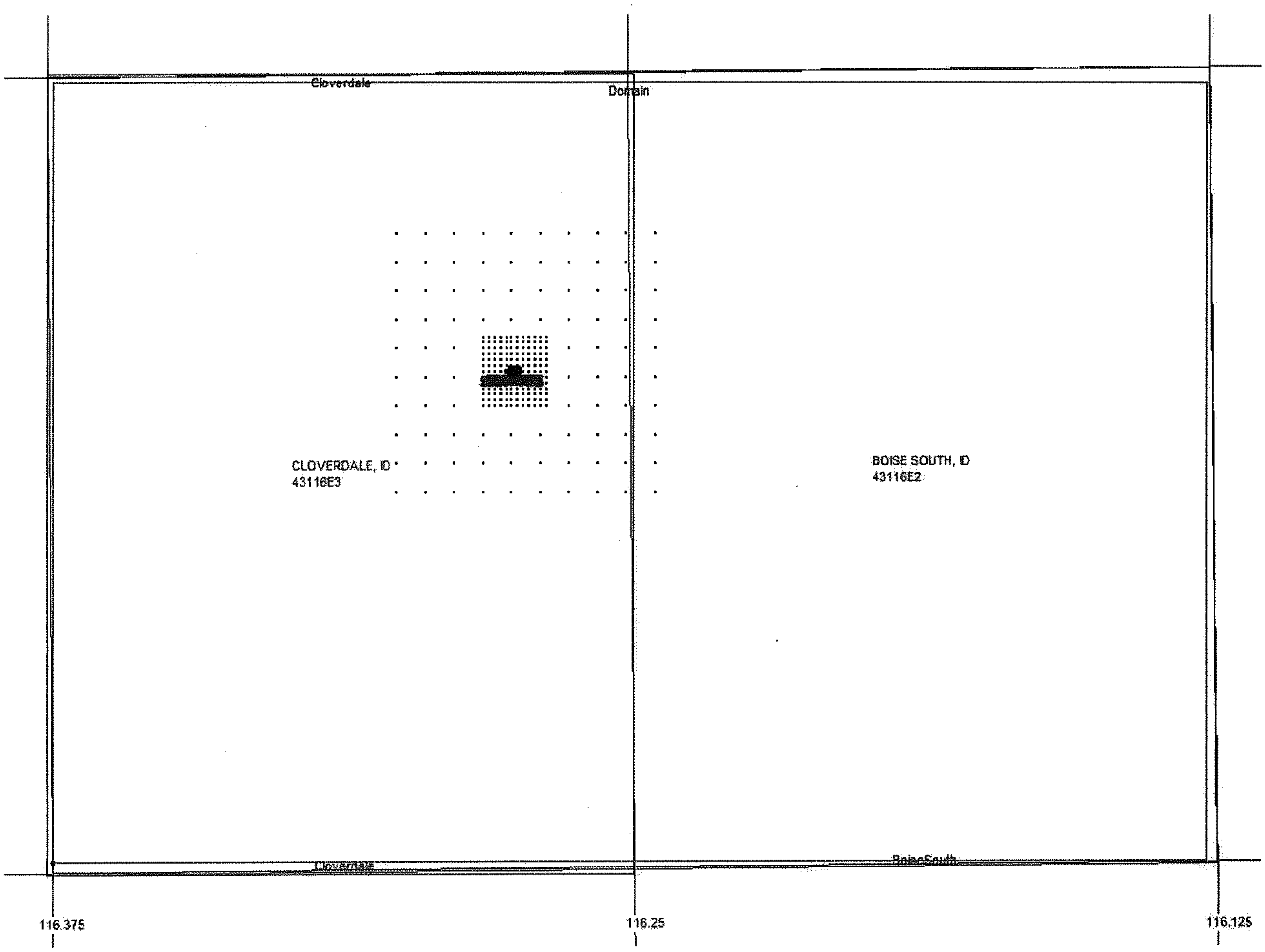
Figure 7-2: Facility Emission Sources



The receptor network used emphasizes receptor density in the near vicinity of the facility. The inner receptors are spaced 10 meters apart along the ambient air boundary (the building and the fenceline), then at 25 meter grid density out to at least 50 meters beyond. The dots along the ambient air boundary represent the nearest model receptors. The model receptor network used in this analysis includes 50 meter grid density out to 150 meters, 100 meter grid spacing out to 600 meters, 500 meter grid density to 2000 meters. All model-predicted maximum impacts occured on the 10 meter ambient air boundary grid spacing around the building and fence or in the bordering 25 meter grid spacing just beyond.

The model domain is calculated by the BeeLine BEEST program to conservatively include the entire USGS quadrangle map (except for squared corners) covering any point with elevations meeting the AERMOD guidance requirements. In this analysis, that represents two USGS quad maps. The area and its surroundings feature generally flat terrain. The AERMAP program is used to set elevations for all model buildings, source bases, and model receptors, and to process elevation and terrain data to be ready for the AERMOD analysis. Figure 7-3, below, shows the outer model receptor network, the model domain (outlined in green), and the corresponding USGS topographic map areas covered.

Figure 7-3: Outer Receptor Network, with Boundaries and Buildings



7.3.2 Emissions Release Parameters

Sources modeled include all emission sources documented in the emission inventory for all pollutants emitted above IDEQ modeling thresholds. The AEC Parts Prep Room One wall vent is presented as a volume source, consistent with IDEQ recommendations. All other emissions are from point sources. Actual stack data is used in the model for those release sources. Stack data (height, orientation, presence of physical blockage, exhaust flow, and/or temperature) for all stacks were checked in the field by facility managers and/or TORF Environmental Management engineers. The wall vent model source data includes a release height consistent with its location 4 feet off the ground, horizontal dimensions based upon the width of the vent divided by 4.3, and vertical dimensions of the height of that wing divided by 2.15 as per AERMOD Users Manual Table 3-1.

All rain-capped vent releases are modeled with actual release diameter or areas, and conservatively assumed to have minimal exit velocity of 0.001 m/sec. Consistent with IDEQ recommendations, all horizontal releases are modeled with minimal exit velocity of 0.001 m/sec and stack diameter at 0.001 m. Three buildings are considered for downwash. That covers all onsite buildings and both buildings close enough to potentially cause downwash impacts at the plant site. The Prime downwash algorithm was applied using BPIP-Prime with data from each building considered for each model source. No fugitive sources of any of the pollutants (other than the indoor-venting media blasting cabinet emissions included with AECPP2) are identified or modeled, unless the wall vent is considered a fugitive source.

Table 7-1, below, lists the model source parameters for all model sources. Table 7-2 (attached) lists the pollutant emission rates modeled from each source.

Table 7-1: Emission Source Release Data

POINT SOURCES		Easting (X)	Northing (Y)	Base Elevation	Stack Height	Temp.	Exit Velocity	Stack Diameter
Source ID	Stack Release Type	(m)	(m)	(m)	(ft)	(°F)	(fps)	(ft)
PLGEN34	HORIZ	558563.0	4825107.0	836.0	14.9	150.0	0.003	0.003
PLRD	HORIZ	558567.0	4825092.0	836.0	16.7	150.0	0.003	0.003
WETPOWC	DEFAULT	558544.0	4825106.0	835.8	29.5	70.0	16.200	1.810
CAMBC	RAINCAP	558561.0	4825106.0	836.0	26.4	70.0	0.003	0.500
APBR	RAINCAP	558537.0	4825076.0	835.5	24.7	70.0	0.003	1.230
SBUFARR1	HORIZ	558509.4	4825080.0	835.5	15.0	150.0	0.003	0.003
SBUFARR2	HORIZ	558509.4	4825074.0	835.4	15.0	150.0	0.003	1.333
SBUFARR3	HORIZ	558509.4	4825068.0	835.3	15.0	150.0	0.003	1.333
ECOVEN1	RAINCAP	558541.0	4825101.5	835.7	28.0	500.0	0.003	0.917
SBUHTR1	DEFAULT	558513.8	4825081.0	835.5	16.2	550.0	42.815	0.833
SBUHTR2	DEFAULT	558513.8	4825075.0	835.4	16.2	550.0	42.815	0.833
SBUHTR3	DEFAULT	558513.8	4825069.0	835.4	16.2	550.0	42.815	0.833
PLGEN5	DEFAULT	558573.0	4825097.5	836.1	20.0	150.0	38.182	1.667
PLBBMAC	DEFAULT	558567.0	4825108.0	836.0	14.0	70.0	35.000	1.170
AECPP2	RAINCAP	558560.8	4825101.8	836.0	26.2	70.0	0.003	4.331

VOLUME SOURCE	Easting (X)	Northing (Y)	Base Elevation	Release Height	Horizontal Dimension	Vertical Dimension
Source ID	(m)	(m)	(m)	(ft)	(ft)	(ft)
AECPP1	558510.0	4825088.5	835.5	4.00	0.79	6.99

The emissions points from the Gen3 and Gen4 filter assemblies are both horizontal, at the same height and located with a few feet of each other. Therefore, and consistent with previous facility modeling, emissions from these two sources were modeled together.

The Fluoropolymer Area four spray booth exhausts were modeled as one (WETPOWC). All four booths exhaust through vertically releasing, 18" vents, fitted with concentric pipe-type rain guards (non-blocking), located in the same process area. Considering their distance to ambient air at the foot of the building and/or along the fenceline, they are effectively collocated. In order to avoid material use tracking from each booth as a permit limit, all spray booth emissions were modeled out of one representative stack.

All three curing ovens vent through rain-capped or downward angled roof stacks. The emissions from the electric ovens are only the small quantity of volatiles generated during coating curing. The gas-fired oven emissions also include combustion gases. Because all the stacks are located in the same area, and more emissions are generated by the gas-fired oven than the electric ovens, for air dispersion modeling all emissions associated with curing are modeled from the gas-fired oven stack. The direct-fired heater exhausts through a 10 inch diameter stack equipped with a rain cap.

Curing temperatures range from 500-700 degrees Fahrenheit. The exhaust gas from the curing oven was modeled at 550°F.

For this PTC modification, the outlet of Gen 5/Farr2's filter assembly is modified from a horizontal to a vertical release. A rectangular to round transition piece and 90 degree elbow will be installed on the outlet. The elbow diameter is 20 inches. The exhaust rate is 5000 CFM, resulting in an outlet velocity of 38.2 feet per second.

7.3.3 Elevation Data

All building base, source base and receptor elevations used in this modeling analysis are calculated from USGS NAD 27 7.5-degree (30m or less horizontal resolution) DEM data using the Bee-Line BEEST preprocessing system and the AERMAP program. Documentation for the AERMAP run is included with the electronic files accompanying this submittal. The area in and around the site is relatively flat, with gradual elevation changes. The base elevation and emission height of each emission source are listed in Table 7-1.

The facility's emission source building height is 23 feet with three lower-tier sections averaging 15'. Adjacent buildings are also 23 feet in height. NxEdge uses much of the building to the east for storage, a repair shop, and shipping/receiving.

7.4 Evaluation of Compliance with Standards

Table 7-3, below, summarizes the results of the AERMOD air dispersion analysis for the site. The ambient air quality impact limits applicable to this analysis for criteria pollutants are the National Ambient Air Quality and identical IDAPA Standards for NOx and PM_{10}, and the IDAPA 58.01.01.585 AACs and 586 AACCs for the TAPs. The maximum ambient concentration shown in Table 7-3 is the maximum model-predicted impact at any receptor in any year for all analyses except 24-hour average PM-10, where the maximum reported is the sixth highest value predicted over five years. Background concentration is added to the predicted maximum PM_{10} impact to compare maximum operational PM_{10} concentration against the NAAQS.

Table 7-3: Comparison of Predicted Impacts with Applicable Ambient Standards

Pollutant	Averaging Period	Background Conc. (μg/m³)	Modeled Worst Case Impact (μg/m³)	Maximum Ambient Conc. (μg/m³)	NAAQS or AACC (μg/m³)	Max Impact or Ambient Conc. (% of Allowable)	Location Of Highest Model Impact
PM_{10}	24 hour	87	57.1	143.1	150	96%	On bldg SW wall
Acetone	24 hour		148		89000	0.2%	10m N of bldg
AL-Ox & metal	24 hour		34.2		500	6.8%	10m N of bldg
i-Butyl Alcohol	24 hour		12.8		7500	0.2%	On bldg SW wall
n-Butyl Alcohol	24 hour		12.0		7500	0.2%	10m N of bldg
$Ca(OH)_2$	24 hour		0.036		250	0.0%	50m E of bldg
Carbon Black	24 hour		0.23		175	0.1%	10m N of bldg
Chromium	24 hour		0.18		25	0.7%	10m N of bldg
Cobalt	24 hour		0.176		5	3.5%	E corner fence
Copper	24 hour		0.00082		10	0.0%	50m E of bldg
Diacetone Alc.	24 hour		119		12000	1.0%	10m N of bldg
Hafnium	24 hour		0.00137		25	0.0%	50m E of bldg
Isopropyl Alc.	24 hour		523		49000	1.1%	10m S of bldg S side
Manganese	24 hour		0.176		50	0.4%	E corner fence
MDI	24 hour		2.40		2.5	96.0%	10m N of bldg
MIBK	24 hour		282		10250	2.8%	10m N of bldg
Molybdenum	24 hour		0.184		250	0.1%	E corner fence
Silicon	24 hour		24.9		500	5.0%	NE corner fence
Tin	24 hour		0.109		100	0.1%	50m E of bldg
Toluene	24 hour		44.5		18750	0.2%	10m N of bldg
124-trimethylbz	24 hour		3.71		6150	0.1%	10m N of bldg
Vanadium Ox	24 hour		0.034		2.5	1.4%	50m E of bldg
VMP Naphtha	24 hour		12.8		68500	0.0%	10m N of bldg
Xylene	24 hour		11.1		21750	0.1%	10m N of bldg
Yttrium	24 hour		14.0		50	28.0%	On bldg SW wall
Zinc	24 hour		0.106		500	0.0%	50m E of bldg
Zlirconium	24 hour		0.069		250	0.0%	50m E of bldg
PM_{10}	Annual	30.1	17.5		50	95%	NE corner fence
NO_x	Annual	32	8.4		60	40%	On bldg N wall
Cadmium	Annual		0.00007		5.6E-04	12.5%	On bldg N wall
Chromium (VI)	Annual		0.00002		8.3E-05	24.1%	NE corner fence
Formaldehyde	Annual		.00173		.077	22.5%	On bldg N wall
Nickel	Annual		.00116		.0042	27.6%	On E fence in NE corner

As shown in Table 7-3, maximum predicted annual average impacts occur in the immediate vicinity of the building and small fenced area in the NE corner. Seven pollutants show maximum impacts 50 meters east of the building. All others have maximum impacts along the building or fence line, or within 10 meters.

All files necessary to duplicate the AERMOD modeling analysis, document the AERMAP application, or verify the details behind information provided in this modeling description are included in the zipped electronic files included in this submittal. Figures showing the maximum impact locations and color coded contours of impacts for each pollutant modeled are also included.

Table 7-2: Emission Source Pollutant Rates

EP-#	Source Name	PM_{10}	Acetone	Aluminum-Ox & metal	i-Butyl Alcohol	n-Butyl Alcohol	$Ca(OH)_2$	Carbon Black	Chromium	Cobalt	Copper	Diacetone Alcohol	Hafnium	Isopropyl Alcohol	Manganese	MDI	MIBK	Molybdenum
		(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)
1	PLGEN34	0.0602		0.0165														
2	PLRD	0.00292		2.92E-04					2.92E-04	2.92E-04					2.92E-04			2.92E-04
3	WETPOWC	0.3103	1.376	4.11E-04	0.119	0.111		0.00216				1.104		1.399		0.0222	2.621	
4	CAMBC	0.00559		0.0753														
5	APBR	0.0588		0.0588														
6	SBUFARR1	0.0529		0.0529														
7	SBUFARR2	0.0529																
8	SBUFARR3	0.0529																
9	ECOVEN1	0.00559							8.24E-07	4.94E-08	5.00E-07				2.24E-07			6.47E-07
10	SBUHTR1	0.00554							7.89E-07	4.74E-08	4.79E-07				2.14E-07			6.20E-07
11	SBUHTR2	0.00554							7.89E-07	4.74E-08	4.79E-07				2.14E-07			6.20E-07
12	SBUHTR3	0.00554							7.89E-07	4.74E-08	4.79E-07				2.14E-07			6.20E-07
13	PLGEN5	0.0857		0.00361			0.00130		1.75E-03		2.42E-05		4.10E-05					0.00350
14	PLBBMAC	0.0429		0.02021					5.42E-04	1.23E-05	3.81E-06		7.08E-06		2.68E-05			7.55E-04
15	AECPP2	0.00628		0.00342														
16	AECPP1	0.00342		0.00342														

EP-#	Source Name	Silicon	Tin	Toluene	1,2,4-Trimethyl benzene	Vanadium Oxide	VMP Naphtha	Xylene	Yttrium	Zinc	Zirconium	PM_{10}	NO_x	Cadmium	Chromium (VI)	Formal-dehyde	Nickel
		(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(tpy)	(tpy)	(tpy)	(tpy)	(tpy)	(tpy)
1	PLGEN34	0.0274										0.264					
2	PLRD	2.92E-04										1.75E-04			2.97E-07		7.00E-06
3	WETPOWC			0.4128	0.0344		0.119	0.103				0.0423				0.00113	
4	CAMBC											0.0245					
5	APBR											0.1800					
6	SBUFARR1											0.2317					
7	SBUFARR2								4.16E-02			0.2317					
8	SBUFARR3											0.2317					
9	ECOVEN1			2.00E-06		1.35E-06				1.71E-05		0.0245	0.322	2.83E-06		1.93E-04	5.41E-06
10	SBUHTR1			1.92E-06		1.30E-06				1.63E-05		0.0243	0.319	2.72E-06		1.85E-04	5.18E-06
11	SBUHTR2			1.92E-06		1.30E-06				1.63E-05		0.0243	0.319	2.72E-06		1.85E-04	5.18E-06
12	SBUHTR3			1.92E-06		1.30E-06				1.63E-05		0.0243	0.319	2.72E-06		1.85E-04	5.18E-06
13	PLGEN5	2.17E-03	0.00329			0.00103			2.96E-04	0.00319	0.00207	0.0241		7.05E-07	2.35E-06		2.70E-04
14	PLBBMAC	1.73E-04	5.22E-04			1.58E-04			5.12E-05	5.03E-04	3.58E-04	0.0500		1.11E-07	3.47E-06		1.87E-04
15	AECPP2											0.00375					
16	AECPP1											0.015					

Federal Requirements Applicability **Form FRA**

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 1-877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 3
03/26/07

Please see instructions on page 2 before filling out the form.

IDENTIFICATION		
Company Name: NxEdge, Inc.	Facility Name:	Facility ID No: 001-00202
Brief Project Description: Facility Equipment and Throughput Modifications		

APPLICABILITY DETERMINATION		
1. Will this project be subject to 1990 CAA Section 112(g)? (Case-by-Case MACT)	☒ NO	☐ YES* * If YES, applicant must submit an application for a case-by-case MACT determination [IAC 567 22-1(3)"b" (8)]
2. Will this project be subject to a New Source Performance Standard? (40 CFR part 60)	☒ NO	☐ YES* *If YES, please identify sub-part: _____
3. Will this project be subject to a MACT (Maximum Achievable Control Technology) regulation? (40 CFR part 63) THIS ONLY APPLIES IF THE PROJECT EMITS A HAZARDOUS AIR POLLUTANT	☒ NO	☐ YES* *If YES, please identify sub-part: _____
4. Will this project be subject to a NESHAP (National Emission Standards for Hazardous Air Pollutants) regulation? (40 CFR part 61)	☒ NO	☐ YES* *If YES, please identify sub-part: _____
5. Will this project be subject to PSD (Prevention of Significant Deterioration)? (40 CFR section 52.21)	☒ NO	☐ YES
6. Was netting done for this project to avoid PSD?	☒ NO	☐ YES* *If YES, please attach netting calculations

IF YOU ARE UNSURE HOW TO ANSWER ANY OF THESE QUESTIONS, CALL THE AIR PERMIT HOTLINE AT 1-877-5PERMIT

8. FEDERAL REGULATION APPLICABILITY – FORM FRA DOCUMENTATION

8.1 New Source Performance Standards

New Source Performance Standards (NSPS) has been established by the EPA for new, modified, or reconstructed facilities and source categories. No NxEdge facility equipment have potentially applicable NSPS subparts.

8.2 National Emission Standards for Hazardous Air Pollutants

Under 40 CFR 63, the EPA has established National Emission Standards for Hazardous Air Pollutants (NESHAP) to regulate HAP emissions from major sources of HAPs. Nxedge generates less than the 10 ton per year single HAP and 25 ton per year total HAP emission thresholds for NESHAP major facility classification.

On January 9, 2008, 40 CFR 63 Subpart HHHHHH- *NESHAP: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources* was issued. NxEdge's emissions qualify the facility as an area source, with HAP emissions generated from surface coating operations below the major facility thresholds. However, Subpart HHHHHH only applies to spray application of coatings containing the target HAPs of chromium, lead, manganese, nickel or cadmium (63.11169(c)). Additionally, per the definition of "spray-applied coating operations" affected by this NESHAP, powder spray and thermal spray operations, including plasma and electric arc spray, are exempt (63.11180). Therefore, the only NxEdge operation potentially affected by the NESHAP standard is the wet coating spray application. With this permit modification, NxEdge is removing chromium from the slate of wet coatings applied. The remaining coatings contain none of the other target HAPs. Therefore 40 CFR 63 Subpart HHHHHH does not apply to NxEdge.

8.3 Prevention of Significant Deterioration

NxEdge is not a designated facility as defined in 40 CFR 52.21(b). In addition, emissions of regulated pollutants are less than the Prevention of Significant Deterioration (PSD) major source threshold of 250 tons per year. Therefore, NxEdge is not subject to PSD regulations.

9. CERTIFICATION

I hereby certify that based upon information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

Tom Schiers
(printed name)

Vice-President
(title)

Thomas C Schiers
(signature)

5/23/08
(date)